**Manuscript title: Results of a Dutch National and subsequent International Expert Meeting on Interconception Care**

**Addendum**

**Methods**

*Literature study*

In June 2015, we performed a literature study on ICC in different databases (Embase, Medline, Web-of-science, Scopus, Cinahl, Pubmed, Cochrane and Google Scholar) with combinations of the following keywords in different inflected forms: interconception, interpregnancy, internatal, multipara, multigravida, consecutive, repeat, following, prepregnancy and preconception care.

Due to the broad scope, our literature search followed the methodology of a scoping review. This is a way to develop a picture of the extent of the literature in a certain domain without narrowing down to a focused research question [1].

The initial search identified 498 titles, to which we added 20 more through reference searching. We included papers published from 1995 onwards that were available in full text in the English language, generally based in western countries, not specific to rare conditions and that were relevant to our five ICC items. Three researchers were involved in reviewing the papers and selecting latest reviews when applicable. We included different kinds of papers (e.g. qualitative, quantitative, opinion papers) that provided information on the five predetermined ICC items: the term, the definition, the content, the relevant target groups and ways to reach the target groups. This resulted in a final selection of 81 papers that are referred to in the literature overview in the manuscript.

*Expert meetings*

In the Netherlands, we organized an afternoon meeting in October 2015 with nineteen participants. Participants were invited based on their expertise and/or their earlier participation in the PCC expert meeting in 2012.

During the Third European Congress on Preconception health and care (ECPHC), which was held in Uppsala in Sweden in February 2016, we organized a second meeting. This meeting, a workshop session, was joined by about 40 participants from seven countries; The United States of America, The United Kingdom, Belgium, Italy, Sweden, Ukraine, and The Netherlands.

Different disciplines were involved in the meetings, being professional caregivers (midwives, general practitioners, gynaecologists, geneticists, paediatricians / neonatologists, a preventive child healthcare physician, a psychologist, and an occupational physician), governmental representatives, representatives of healthcare expertise centres, researchers (e.g. epidemiologists, a medical ethicist, clinical researchers) and research funders.

**Results**

Table. Studies reporting impact of interconception care interventions (k =8)

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| --- | --- | --- | --- | --- |
| Author (year); country | Study design | Intervention / focus | Participants description + N | Key findings / recommendations |
| Doyle et al (1999)[2]; UK | Intervention (pilot study) | Effectiveness of a 6-month period of nutrition counselling during the interpregnancy interval | Mothers who had a low-birthweight baby (<2,500 g) and planned to have another baby in the future N= 77 (51%); 70 inadequate diet;41 follow up completed | \* High prevalence of inadequate nutrition among women who deliver low-birthweight babies in this inner-city community.  \* Mothers in this population are not receptive to an intervention program designed to improve their nutritional intake, but the trend was towards an improved dietary intake. \* Poor awareness of the importance of nutrition in relation to pregnancy outcome |
| Loomis and Martin (2000)[3]; USA | Intervention | \* Case management and home visits from delivery up to 8 or >24 months postpartum \* To improve participant's internal resilience, use of medical services and reproductive planning and to reduce or eliminate existing medical, nutritional, psychosocial, and behavioral risks  \* Through education, counselling, financial support, referral, and follow-up prior to the onset of another pregnancy to improve outcomes of subsequent pregnancies | Women delivering an low-birthweight baby (<2,500 g) or with a congenital anomaly, or after having a perinatal fetal demise + prioritization criteria based on risk factors  N=277 (59%); 151 follow up completed | \* Because of the relatively small number of program cases, no definitive conclusions are drawn about its effectiveness in preventing recurrent preterm birth and LBW. \* The fact that none of 26 infants born to participant women were admitted to the NICU is suggestive of a positive program effect. \* Identification of high-risk women at the time of a poor reproductive outcome appeared to be an effective strategy to engage a traditionally hard-to-reach population. |
| Lumley and Donohue (2006)[4]; Australia | Randomized controlled trial | \* After randomization, a home visit by study midwife for everyone to discuss past pregnancy \* In intervention arm: pre-pregnancy discussion of social, health or lifestyle problems and preparation for next pregnancy including a reminder card and referral if necessary.  \* To assess increase in birth weight | Women attending local maternal and child health centers with their first child between May 1982 and July 1991  N =1688 randomized; 392 (intervention arm + 394 control arm) pregnant women | \* More adverse outcomes in intervention arm (preterm birth and low birthweight), but no significant differences \* Birth weight on average 97g lighter in the intervention group, but may be (partly) explained by more preterm births |
| Andrews et al. (2006)[5]; USA | Randomized controlled trial | \* To estimate if antibiotic administration during the interpregnancy interval in women with a previous preterm birth before 34 weeks’ gestational age reduces the rate of preterm birth in the subsequent pregnancy. \* Randomization 4 months postpartum to receive oral azithromycin 1 g twice plus metronidazole 750 mg daily for 7 days, or placebos, every 4 months until pregnancy. | Women with a spontaneous preterm birth <34 weeks’ gestational age  N =241 women randomized; 124 conceived a subsequent pregnancy | \* Intermittent treatment with metronidazole plus azithromycin of non-pregnant women with a recent early spontaneous preterm birth does not significantly reduce subsequent preterm birth, and may be associated with a lower delivery gestational age and lower birth weight |
| Dunlop et al. (2007)[6]; USA | Mixed prospective-retrospective cohort | \* Primary healthcare and social support for 24 months following a very-low birth weight delivery to improve subsequent child spacing and pregnancy outcomes | African-Americans of lower socioeconomic status N = 29 prospective cohort (=intervention); 5 pregnant; 2003-2004 N = 58 retrospective cohort (= control); 29 pregnant; 2001-2002 | \* Control cohort: 2.6 (CI 1,1-5,8) times as many pregnancies within 18 months and 3.5 (CI 1,0-11,7) times as many adverse outcomes (late spontaneous abortion, stillbirth, ectopic or molar pregnancy, or a live born infant weighing <2500 g) |
| Livingood et al. (2010)[7]; USA | Retrospective quasi-experimental design | \* Social determinant intervention, designed to mitigate the impact of social class and stress; building resilience to negative social forces through peer mentor-based case management \*A secondary data analysis to assess impact of pre- and inter-conception case management on birth outcomes and related health factors; ICC specific outcome was a minimum of 2 year interval between births (yes/no/not pregnant) | The Magnolia Project intervention group of African- American women from a socioeconomic high-risk area (n=217) and a closely matched comparison group of Medicaid-eligible clients (n=412) | \* Chi square analyses of the frequency of successful and failed inter-conception periods (lengths) did not show statistically significant differences between the groups. |
| Salihu et al. (2011)[8]: USA | Ecological study | \* ICC health education for young mothers through monthly home visits or monthly peer support group meetings addressing a range of topics to reduce repeat teen pregnancy \* PCC services for teenagers (not further described here) | Mothers <20 years for ICC  N=3,155 between 1998-2007 (2000-2007 used for analyses of repeat pregnancies) | \* Efforts to prevent repeat teenage pregnancy were not successful; it increased over time in both the target community as well as the comparison communities. |
| de Smit et al. (2015)[9]; The Netherlands | Controlled intervention study | \* Intervention consisting of tailored provision of information (verbal and in writing) at the six month well-baby visit to promote the preconception use of folic acid supplements in mothers who expected to be pregnant again within 0–12 months | Mothers who visit a well-baby clinic for the 6-month and 11-month check-up of their child  N = 198 (68%) intervention group N = 215 (84%) control group | \* Folic acid use or usage intention was 65 % in the intervention group versus 42 % in the control group (95 % CI 4, 43 %, P <0·05). \*Health education intervention at the 6-month well-baby visit is an effective means to promote the use of FA supplements or the intention to do so |

**References**

1. Armstrong R, Hall BJ, Doyle J, et al. Cochrane Update. 'Scoping the scope' of a cochrane review. J Public Health (Oxf). 2011 Mar;33(1):147-50. doi: fdr015 [pii] 10.1093/pubmed/fdr015. PubMed PMID: 21345890; eng.

2. Doyle W, Crawford MA, Srivastava A, et al. Interpregnancy nutrition intervention with mothers of low-birthweight babies living in an inner city area: a feasibility study. Journal of Human Nutrition and Dietetics. 1999;12:517-527.

3. Loomis LW, Martin MW. The interconception health promotion initiative: A demonstration project to reduce the incidence of repeat LBW deliveries in an urban safety net hospital [Article]. Fam Community Health. 2000 Oct;23(3):1-16. PubMed PMID: WOS:000089168300003.

4. Lumley J, Donohue L. Aiming to increase birth weight: a randomised trial of pre-pregnancy information, advice and counselling in inner-urban Melbourne. BMC Public Health. 2006 Dec 10;6:299. doi: 1471-2458-6-299 [pii] 10.1186/1471-2458-6-299. PubMed PMID: 17156466; PubMed Central PMCID: PMC1712341. eng.

5. Andrews WW, Goldenberg RL, Hauth JC, et al. Interconceptional antibiotics to prevent spontaneous preterm birth: A randomized clinical trial. Am J Obstet Gynecol. 2006;194(3):617-623. doi: 10.1016/j.ajog.2005.11.049.

6. Dunlop AL, Dubin C, Raynor BD, et al. Interpregnancy primary care and social support for African-American women at risk for recurrent very-low-birthweight delivery: A pilot evaluation. Matern Child Health J. 2008;12(4):461-468. doi: 10.1007/s10995-007-0279-z.

7. Livingood WC, Brady C, Pierce K, et al. Impact of pre-conception health care: evaluation of a social determinants focused intervention. Matern Child Health J. 2010 May;14(3):382-91. doi: 10.1007/s10995-009-0471-4. PubMed PMID: 19662521; eng.

8. Salihu HM, August EM, Jeffers DF, et al. Effectiveness of a Federal Healthy Start Program in Reducing Primary and Repeat Teen Pregnancies: Our Experience over the Decade. J Pediatr Adolesc Gynecol. 2011;24(3):153-160. doi: 10.1016/j.jpag.2011.01.001.

9. de Smit DJ, Weinreich SS, Cornel MC. Effects of a simple educational intervention in well-baby clinics on women's knowledge about and intake of folic acid supplements in the periconceptional period: a controlled trial. Public Health Nutr. 2015 Apr;18(6):1119-26. doi: S1368980014000986 [pii] 10.1017/S1368980014000986. PubMed PMID: 24866258; eng.